What is claimed is:

1. A confocal probe, comprising:

an optical fiber introducing light having wavelengths within a predetermined wavelength range in the confocal probe;

a collimating lens that collimates light emerged from an end surface of the optical fiber;

a dispersing prism that receives the light collimated by the collimating lens and disperses the received light in a predetermined direction, light emerged from the dispersing prism and having the same wavelength being kept collimated; and

a light converging optical system that converges the light emerged from the dispersing prism on a target.

2. The confocal probe according to claim 1, wherein an optical axis of the collimating lens, an optical axis of the light converging optical system and an optical path of a chief ray of the light emerged from the end surface of the optical fiber are substantially parallel with each other, the optical path of the chief ray of the light emerged from the end surface of the optical fiber being shifted with the optical axis of the collimating lens by a predetermined amount.

3. The confocal probe according to claim 1, wherein the collimating lens is arranged such that a distance from the

collimating lens to the end surface of the optical fiber and a distance from the collimating lens to a light incident surface of the dispersing prism are substantially the same as a focal length of the collimating lens.

4. The confocal probe according to claim 2, wherein a shifting amount Δg between the optical path of the chief ray of the light emerged from the optical fiber and the optical axis of the collimating lens is expressed by a following equation:

$$\Delta g = f_{CL} \cdot \tan[\theta_{in} + \theta_{out}(\lambda_0) - \theta_\alpha],$$

where,

f_{CL} is a focal length of the collimating lens;

θ_{in} is an incident angle of the light emerged from the collimating lens and incident on the dispersing prism;

λo is a wavelength of a reference dispersed light passing on the optical axis of the converging optical system;

$\theta_{out}(\lambda o)$ is an emerging angle of the reference dispersed light emerged from the dispersing prism; and

θ_α is a vertex angle of the dispersing prism.

5. The confocal probe according to claim 1, wherein the light converging optical system is arranged such that a distance from the light converging optical system to a position where each

dispersed beam is emerged from the dispersing prism is substantially the same as the focal length of the light converging optical system.

6. The confocal probe according to claim 1, wherein the dispersing prism comprises a triangular prism.

7. The confocal probe according to claim 1, wherein the dispersing prism comprises a wedge prism.

8. The confocal probe according to claim 1, further comprising a driving mechanism that drives the light converging optical system in a direction perpendicular to the optical axis of the converging optical system and the predetermined direction.

9. The confocal probe according to claim 1, further including a pinhole that shields light reflected by the target at a position other than the target side focal plane of the converging optical system,

wherein the pinhole is the end surface of the optical fiber on which the light reflected by the target is incident.

10. A confocal probe, comprising:

an optical fiber introducing light having wavelengths

within a predetermined wavelength range in the confocal probe;

a collimating lens that collimates light emerged from an end surface of the optical fiber;

a dispersing optical system that receives the light collimated by the collimating lens and disperses the received light in a predetermined direction, light emerged from the dispersing optical system and having the same wavelength being kept collimated; and

a light converging optical system that converges the light emerged from the dispersing optical system on a target,

wherein an optical axis of the collimating lens, an optical axis of the light converging optical system and an optical path of a chief ray of the light emerged from the end surface of the optical fiber are substantially parallel with each other, the optical path of the chief ray of the light emerged from the end surface of the optical fiber being shifted with respect to the optical axis of the collimating lens by a predetermined amount.

11. A confocal microscope, comprising:

a multi-spectrum light source that emits light having wavelengths within a predetermined wavelength range;

a confocal probe which includes an optical fiber that introduces the light emitted by the multi-spectrum light source in the confocal probe, a collimating lens that collimates light

transmitted by and emerged from an end surface of the optical fiber, a dispersing prism that receives the light collimated by the collimating lens and disperses the received light in a predetermined direction, light emerged from the dispersing prism and having the same wavelength being kept collimated, and a light converging optical system that converges the light emerged from the dispersing prism on a target;

a measuring device that detects spectrum of the light reflected by the target; and

an image generating system that generates an image of the target based on an output of the measuring device.